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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/899,265 | 07/06/2001 | Nevein T. Sultan | 9-13528-170US | 3921 |

7590 10/07/2004

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EXAMINER

REFAI, RAMSEY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2154

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 09/899,265 | Applicant(s) SULTAN ET AL. | |
| | Examiner Ramsey M Refai | Art Unit 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>08/15/2002</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 31 are presented for examination.

Priority

2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows: This application is claiming the benefit of a prior filed nonprovisional application under 35 U.S.C. 120, 121, or 365(c). Copendency between the current application and the prior application is required.

Specification

3. The attempt to incorporate subject matter into this application by reference to U.S. Patent Application No. 09/742,310 is improper because applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120. Applicant is required to delete this reference in the disclosure.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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4. Claims 25 – 31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to software per se and render it non-statutory, unless implemented on a computer readable medium.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6, 9-10, 12-22, 25-26, and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Tappan (U.S. Patent No. 6,473,421).

6. As per claim 1, Tappan teaches a method comprising steps of:
asserting a route tag in respect of a link state advertisement (LSA) message (**column 7, lines 14 – 67 and column 5, lines 5-15**); and
controlling propagation of the LSA through the data network using the asserted internal route tag (**column 7, lines 14 – 67 and column 5, lines 5-15**).

7. As per claim 2, Tappan teaches the data network is an Open Shortest Path first (OSPF) network (**abstract**).

8. As per claim 3, Tappan teaches a route tag comprises one of: an internal route tag associated with an address located within an autonomous system of the data network; and an external route tag associated with an address located outside the autonomous system (**Figure 3**).

9. As per claim 4, Tappan teaches the step of asserting a route tag comprises steps of: setting a route tag value respecting the LSA; and inserting the route tag value into a predetermined field of the LSA (**column 7, lines 14 – 67 and column 5, lines 5-15**).

10. As per claim 5, Tappan teaches wherein the route tag value is set by a policy having a match criteria corresponding to a predetermined attribute of the LSA (**column 1, line 40 – column 2, lines 50 and column 6, lines 5-50**).

11. As per claim 6, Tappan teaches wherein the predetermined attribute comprises any one or more of: a source address; a source area; a destination address; and a destination area (**column 2, lines 3 – 50 and Figure 3**).

12. As per claim 9, Tappan teaches the step of controlling propagation of the LSA comprises a step of implementing a forwarding policy having a match criteria corresponding to the asserted route tag (**column 2, lines 3 - 50**).

13. As per claim 10, Tappan teaches the forwarding policy corresponds to one of: a pass decision, in which the LSA is forwarded to a downstream link; and a discard decision, in which the LSA is discarded without forwarding (**column 1, lines 41-47**).

14. As per claim 14, Tappan teaches an autonomous system border router, and an area border router (**abstract**).

15. As per claims 12 -13, 15 - 22, 25 - 26, and 28 - 29, these claims contain similar limitations as claims 1-6, and 9-10 above, therefore are rejected under the same rationale.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 7-8, 23-24, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tappan (U.S. Patent No. 6,473,421) as per claim 1 above, in view of AAPA (Applicant Admitted Prior Art).

18. As per claim 7, Tappan teaches the step of inserting the route tag comprises a step of inserting the route tag value into an external route tag field of the LSA (**column 5, lines 5 - 15**).

19. Tappan fails to teach the use of Type-5 LSA.

20. However, AAPA teaches the use of Type-5 LSA (**paragraph [0007]**). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the teachings of Tappan and AAPA because AAPA use of Type-5 LSA in Tappan's system would allow for advertisements to describe routes to destinations external to the Autonomous System.

21. As per claim 8, Tappan teaches the step of inserting the route tag comprises a step of inserting the route tag value into an internal route tag field (**column 1, lines, 40-56 and column 2, lines 10-50**).

22. Tappan fails to teach the use of Type-3 LSA.

23. However, AAPA teaches the use of Type-3 LSA (**paragraph [0008]**). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the teachings of Tappan and AAPA because AAPA use of Type-3 LSA in Tappan's system would allow advertisements to describe routes to networks.

24. As per claims 23-24 and 30-31, these claims contain similar limitations as claims 7-8 above, therefore are rejected under the same rationale.

25. Claims 11, 18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tappan (U.S. Patent No. 6,473,421) as per claim 1 above, in view of AAPA (Applicant Admitted Prior Art) and in further view of Soloway et al (U.S. Patent No. 5,265,092).

26. As per claim 11, Tappan teaches the use LSA (**abstract**) and a forwarding table (policy) (**column 2, lines 10-50**).

27. Tappan fails to teach forwarding table-using information contained in the LSA as either one of: an inclusion route; and an exclusion route.

28. However AAPA teaches a forwarding table that contains inclusion routes (**paragraph [0010]**). AAPA fails to teach the use of exclusion routes in forwarding tables.

29. However, Soloway et al teaches using exclusion routes in forwarding tables (**column 6, lines 35-60; when the switch detects, via LSP (link state packet), that the route/link is changed/down/affected, it stores the changed/down/affected route/link information in the forwarded table**). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the teachings of Tappan, AAPA, and Soloway et al because AAPA's use of inclusion routes in forwarding tables and Soloway et al's use of exclusion routes in forwarding tables in Tappan's system would provide for a way to control traffic flow within networks by using a forwarding policy that contains inclusion and exclusion routes which allow an ASBR to discard or pass selected packets according to these routes.

30. As per claims 18 and 27, these claims contain similar limitations as claim 11 above, therefore are rejected under the same rationale.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Cain (U.S. Patent No. 6,650,626)
- b. Fujita (U.S. Patent Application No. 2001/0032272)
- c. Rekhter (U.S. Patent No. 5,917,820)
- d. Zhang (U.S. Patent No. 6,275,492)
- e. Fukushima et al (U.S. Patent No. 6,049,524)
- f. Dobbins et al (U.S. Patent No. 5,825,772).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey M Refai whose telephone number is (703) 605-4361 (after November 1, 2004, (571) 272-3975). The examiner can normally be reached on M-F 8:30 - 5:00 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey M Refai
Examiner
Art Unit 2154

RMR
September 28, 2004


ZARNI MAUNG
PRIMARY EXAMINER